

PROJECT 10073 RECORD CARD

1. DATE 20 June 1963		2. LOCATION 15.56N 81.05W (Gulf of Mexico)		12. CONCLUSIONS <input type="checkbox"/> Was Balloon <input type="checkbox"/> Probably Balloon <input type="checkbox"/> Possibly Balloon <input type="checkbox"/> Was Aircraft <input type="checkbox"/> Probably Aircraft <input type="checkbox"/> Possibly Aircraft <input type="checkbox"/> Was Astronomical <input type="checkbox"/> Probably Astronomical <input type="checkbox"/> Possibly Astronomical	
3. DATE-TIME GROUP Local _____ GMT 21/0042Z		4. TYPE OF OBSERVATION XXX Ground-Visual <input type="checkbox"/> Ground-Radar <input type="checkbox"/> Air-Visual <input type="checkbox"/> Air-Intercept Radar			
5. PHOTOS <input type="checkbox"/> Yes XXX No		6. SOURCE civilian			
7. LENGTH OF OBSERVATION 6 minutes		8. NUMBER OF OBJECTS one		9. COURSE NE	
				<input checked="" type="checkbox"/> Other Satellite ECHO I <input type="checkbox"/> Insufficient Data for Evaluation <input type="checkbox"/> Unknown	
10. BRIEF SUMMARY OF SIGHTING Object as bright as Polaris in flight with elevation of 16 deg observed at 340 deg azimuth. Flight at East disappearing after 6 min observation at 015 deg azimuth 5 deg elev.				11. COMMENTS At 0020Z on 21 June ECHO crossed equator at 126 deg W Longitude. this places to Satellite in position for observation by the witness. Case evaluated as ECHO I.	

UNITED STATES GOVERNMENT

Memorandum

TO : J. S. Lacey, OPI
NASA, Greenbelt

Code 5511:JCW

DATE: 15 July 1963

FROM : Nautical Information Branch
U.S. Naval Oceanographic Office

SUBJECT: Satellite ECHO

Encl: (1) Marine Data Report from Liberian Ship PENSACOLA dtd 20 Jun 63
(2) Observation from M. V. FERNGATE dtd 1 July 63

1. Enclosures (1) and (2) forwarded for your information.

Forwarded as a matter pertaining
to your organization. Your attention
to this matter will be appreciated.

G. Buckwalter
G. BUCKWALTER

Ed Mason
Ed Mason
Public Information Officer
Goddard Space Flight Center

Case includes one (1) photocopied page of narrative.

MARINE DATA REPORT

Please type or print clearly

NAME OF SHIP **PENSACOLA** NATIONALITY **LIBERIAN** DATE OF REPORT **June 20th 1963**

MASTER OR COMMANDING OFFICER **ENILIO FERNANDES GOITIA** OBSERVER (Name and Rank) **ENILIO FERNANDES GOITIA, MASTER.**

SHIP'S MAIL ADDRESS (U. S. Agent's address for mail & ships) **Southern Shipping Company, Inc., 417 International Trade Mart, New Orleans 12, La.**

SHIP TYPE ☐ PASSENGER ☒ CARGO ☐ COMB. PASSENGER-CARGO ☐ TANKER ☐ OTHER (Specify)

GROSS TONS **1697** LENGTH (Feet) **253.09 5/8** BEAM (Feet) **42.01** DEEPEST DRAFT (Feet) when loaded to draft **16.00**

Instructions for Reporting Observer

This form is provided for the convenience of mariners in reporting items of interest to the Hydrographic Office such as wrecks, shoalings, uncharted dangers, discrepancies in published information, etc. Such reports will enable the Hydrographic Office to correct its charts and publications and promote navigational safety, thereby benefiting mariners generally. In all cases, be sure to describe items fully, and specify the date, time (G.M.T.), and position or location of the items reported. Additional information on submitting reports will be found in H. O. Pub. No. 906a.

Observations should be made only in the vicinity of the reporting ship. Observations should be made only in the vicinity of the reporting ship.

On passage from Seattle, Wash. to Asajitlay, El Salvador, C.A., via Panama Canal in Latitude 15.58 N Longitude 81.05 W at 18.42.23 C.S.T. June 20th 1963 or 00.42.23 G.M.T. June 21st 1963. Observed bright object (As bright as Polaris) with altitude 16° 20' Azimuth 340° true, moving Eastward.

It disappeared below low clouds at 18.48.37 C.S.T. June 20th 1963 with altitude 5° (About) Azimuth true 315°.

Barometric Pressure at sea level 29.95 Temperature 86° Fahrenheit Wind East Force 4.

REPORT URGENT DANGERS BY RADIO

Encl. (2)

July 1, 1963.

Nor. M. V. FERNGATE

Observed Satellite 20°21'56" North

166°22'00" East

"W.W. from ship, moving north".

Appeared as bright star.

SATELLITE 1960 IOTA 1										
EQUATOR		FOR OTHER LATITUDES								
S-N		SOUTH-NORTH		NORTH-SOUTH						
TIME	LONG.	LAT.	TIME	LONG.	HT.	BEAR.	TIME	LONG.	HT.	BEAR.
(UT)	(W)		CORR.	CORR.	(MI)	(N-E)	CORR.	CORR.	(MI)	(N-E)
JUNE 16, 1963										
1 21.1	121.92	47.4	28.7	-82.72	1088	90.0°	28.7	-82.74	1088	90.0°
3 22.2	151.03	45.0	23.2	-60.86	1026	72.3°	34.3	-104.58	1135	107.7°
5 17.2	180.14	40.0	18.9	-45.65	969	60.7°	38.9	-119.73	1158	119.4°
7 12.3	209.24	35.0	15.7	-36.05	925	54.0°	42.3	-129.26	1166	126.1°
9 7.3	238.35	30.0	13.1	-28.73	887	49.4°	45.3	-136.51	1167	130.7°
11 2.4	267.46	20.0	8.4	-17.42	820	43.7°	50.7	-147.65	1153	136.5°
13 57.4	296.56	0.	0.	0.	720	40.0°	60.3	-164.75	1083	140.2°
15 52.5	325.67	-20.0	-6.1	17.49	664	43.8°	-45.6	148.94	914	136.4°
17 47.6	354.78	-40.0	-12.4	28.69	656	49.5°	-40.7	137.68	909	130.6°
19 42.6	383.88	-55.0	-14.8	36.28	658	54.1°	-38.0	130.35	872	126.0°
21 37.7	412.99	-60.0	-17.6	45.98	666	60.9°	-35.0	120.72	832	119.3°
23 32.7	442.09	-65.0	-21.4	51.32	688	72.4°	-31.0	105.93	782	107.6°
		-67.4	-26.1	61.37	728	90.0°	-26.1	83.41	728	90.0°
JUNE 17, 1963										
0 27.8	111.20	47.4	28.5	-82.76	1078	90.0°	28.5	-82.80	1078	90.0°
2 22.8	140.31	45.0	23.0	-60.90	1013	72.3°	34.2	-104.63	1129	107.7°
4 17.9	169.41	40.0	18.8	-45.68	955	60.7°	38.7	-119.77	1156	119.4°
6 12.9	198.52	35.0	15.7	-36.07	910	54.0°	42.2	-129.30	1167	126.1°
8 8.0	227.62	30.0	13.0	-28.74	871	49.4°	45.1	-136.55	1170	130.7°
10 3.1	256.73	20.0	8.3	-17.43	805	43.7°	50.5	-147.70	1159	136.5°
12 58.1	285.84	0.	0.	0.	708	40.0°	60.1	-164.78	1095	140.2°
14 53.2	314.94	-20.0	-8.0	17.50	658	43.8°	-45.6	148.92	989	136.4°
16 48.2	344.05	-40.0	-12.4	28.90	652	49.5°	-40.7	137.67	923	130.6°
18 43.3	373.15	-55.0	-14.8	36.29	657	54.1°	-38.0	130.34	886	126.0°
20 38.3	402.26	-60.0	-17.6	45.99	667	60.8°	-35.0	120.71	845	119.3°
22 33.4	431.36	-65.0	-21.3	51.33	692	72.4°	-31.0	105.93	793	107.6°
24 28.4	460.47	-67.4	-26.1	61.38	736	90.0°	-26.1	83.41	736	90.0°
JUNE 18, 1963										
1 23.5	129.57	47.4	28.4	-82.81	1067	90.0°	28.4	-82.84	1067	90.0°
3 18.5	158.67	45.0	22.9	-60.93	999	72.3°	34.0	-104.68	1122	107.7°
5 13.6	187.78	40.0	18.6	-45.71	939	60.7°	38.5	-119.82	1152	119.4°
7 8.6	216.88	35.0	15.6	-36.10	894	54.0°	41.9	-129.35	1166	126.1°
9 3.7	245.99	30.0	12.9	-28.76	855	49.4°	44.9	-136.60	1172	130.7°
11 58.7	275.09	20.0	8.3	-17.44	790	43.7°	50.3	-147.75	1166	136.5°
13 53.8	304.20	0.	0.	0.	696	40.0°	60.0	-164.82	1108	140.2°
15 48.8	333.30	-20.0	-8.0	17.51	651	43.8°	-45.7	148.90	1005	136.4°
17 43.8	362.40	-40.0	-12.3	28.91	650	49.5°	-40.8	137.65	939	130.6°
19 38.9	391.51	-55.0	-14.7	36.30	656	54.1°	-38.1	130.33	901	126.0°
21 33.9	420.61	-60.0	-17.5	45.90	669	60.8°	-35.0	120.71	859	119.3°
23 29.0	449.71	-65.0	-21.3	51.34	697	72.4°	-31.0	105.93	805	107.6°
		-67.4	-26.1	61.38	745	90.0°	-26.1	83.42	745	90.0°
JUNE 19, 1963										
0 24.0	117.67	47.4	28.2	-82.85	1055	90.0°	28.2	-82.88	1056	90.0°
2 19.1	146.77	45.0	22.8	-60.97	985	72.3°	33.8	-104.72	1114	107.7°
4 14.1	175.87	40.0	18.5	-45.74	924	60.7°	38.1	-119.87	1148	119.4°
6 9.2	204.97	35.0	15.5	-36.12	878	54.0°	41.8	-129.40	1165	126.1°
8 4.2	234.07	30.0	12.8	-28.78	840	49.4°	44.7	-136.65	1171	130.7°
10 59.7	263.17	20.0	8.2	-17.45	775	43.8°	50.1	-147.79	1171	136.5°
12 54.3	292.27	0.	0.	0.	686	40.0°	59.8	-164.86	1120	140.2°
14 49.3	321.37	-20.0	-8.0	17.51	646	43.8°	-45.8	148.87	1019	136.4°
16 44.4	350.47	-40.0	-12.3	28.92	648	49.5°	-40.9	137.63	954	130.6°
18 39.4	379.57	-55.0	-14.7	36.31	657	54.1°	-38.1	130.32	916	126.0°
20 34.4	408.67	-60.0	-17.5	45.90	672	60.8°	-35.1	120.70	871	119.3°
22 29.5	437.77	-65.0	-21.3	51.35	702	72.4°	-31.0	105.92	817	107.6°
24 24.5	466.87	-67.4	-26.1	61.38	754	90.0°	-26.1	83.42	754	90.0°

EQUATOR S-N		LAT.	SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES				NORTH-SOUTH			
TIME (UT)	LONG. (W)		TIME CORR.	SOUTH-NORTH LONG. CORR.	HT. (MI)	BEAR. (N-E)	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)
JUNE 20, 1963										
1 19.6	137.15	47.4	29.0	-82.89	1042	90.0°	28.0	-82.93	1042	90.0°
3 14.6	166.25	45.0	22.6	-61.00	949	72.3°	33.6	-104.77	1104	107.7°
5 9.6	195.36	40.0	18.4	-45.77	907	60.7°	38.1	-119.93	1142	119.4°
7 4.7	224.46	35.0	15.4	-36.15	861	54.0°	41.5	-129.46	1162	126.1°
9 59.7	253.56	30.0	12.8	-28.80	823	49.4°	44.5	-136.71	1172	130.7°
10 54.8	282.66	20.0	8.2	-17.47	760	43.8°	49.9	-147.85	1176	136.5°
12 49.8	311.76	0.	0.	0.	675	40.0°	59.6	-164.91	1132	140.2°
14 44.8	340.86	-20.0	-8.0	17.52	641	43.8°	-46.0	148.84	1036	136.4°
16 39.9	369.96	-30.0	-12.3	28.93	647	49.5°	-40.9	137.61	970	130.6°
18 34.9	399.06	-35.0	-14.7	36.32	658	54.1°	-38.2	130.30	932	126.0°
20 29.9	428.17	-40.0	-17.5	46.01	676	60.8°	-35.1	120.69	888	119.3°
22 25.0	457.27	-45.0	-21.3	61.35	710	72.4°	-31.0	105.92	831	107.7°
		-47.4	-26.1	83.38	765	90.0°	-26.1	83.42	765	90.0°
JUNE 21, 1963										
0 20.0	126.37	47.4	27.9	-82.93	1029	90.0°	27.9	-82.97	1029	90.0°
2 15.0	155.47	45.0	22.5	-61.04	954	72.3°	33.4	-104.82	1095	107.7°
4 10.1	184.57	40.0	18.3	-45.80	891	60.7°	37.9	-119.98	1136	119.4°
6 5.1	213.67	35.0	15.3	-36.17	846	54.0°	41.3	-129.51	1158	126.1°
8 0.1	242.77	30.0	12.7	-28.82	808	49.5°	44.3	-136.76	1171	130.7°
9 58.2	271.87	20.0	8.1	-17.48	746	43.8°	49.7	-147.90	1179	136.5°
11 50.2	300.97	0.	0.	0.	665	40.0°	59.5	-164.96	1143	140.2°
13 45.2	330.07	-20.0	-7.9	17.52	630	43.8°	-46.1	148.81	1050	136.4°
15 40.3	359.17	-30.0	-12.2	28.93	647	49.5°	-41.0	137.59	986	130.6°
17 35.3	388.27	-35.0	-14.7	36.33	660	54.1°	-38.3	130.28	948	126.0°
19 30.3	417.37	-40.0	-17.4	46.02	680	60.8°	-35.2	120.67	903	119.3°
21 25.3	446.47	-45.0	-21.2	61.35	717	72.4°	-31.1	105.91	854	107.7°
23 20.4	475.57	-47.4	-26.1	83.38	775	90.0°	-26.1	83.42	775	90.0°
JUNE 22, 1963										
1 15.4	144.67	47.4	27.7	-82.98	1014	90.0°	27.7	-83.01	1015	90.0°
3 10.4	173.77	45.0	22.3	-61.07	937	72.3°	33.2	-104.87	1083	107.7°
5 5.5	202.86	40.0	18.2	-45.82	874	60.7°	37.7	-120.03	1128	119.4°
7 0.5	231.96	35.0	15.2	-36.19	829	54.0°	41.1	-129.57	1153	126.1°
9 55.5	261.06	30.0	12.6	-28.84	791	49.5°	44.1	-136.82	1169	130.7°
10 50.5	290.16	20.0	8.1	-17.49	731	43.8°	49.4	-147.96	1182	136.5°
12 45.6	319.26	0.	0.	0.	655	40.1	59.3	-165.01	1154	140.2°
14 40.6	348.36	-20.0	-7.9	17.53	635	43.8°	-46.2	148.77	1066	136.4°
16 35.6	377.46	-30.0	-12.2	28.94	648	49.5°	-41.2	137.56	1003	130.6°
18 30.6	406.56	-35.0	-14.6	36.33	663	54.1°	-38.4	130.26	964	126.0°
20 25.7	435.66	-40.0	-17.4	46.02	686	60.8°	-35.3	120.65	919	119.3°
22 20.7	464.75	-45.0	-21.2	61.36	726	72.4°	-31.1	105.90	859	107.7°
		-47.4	-26.1	83.38	788	90.0°	-26.1	83.41	788	90.0°

MODIFIED ORBITAL ELEMENTS FOR EARTH SATELLITE 1960 IOTA 1

REFERENCE TIME 1963 Y 6 M 20 D 17.00 M UT

INCLINATION 47.24 DEG.

ASCENDING NODE (LONG.) 85.26 DEG. WEST

PRIME SWEEP INTERVAL ONE DAY -16.93 MIN.

ARGUMENT OF PERIGEE 286.04 DEG.

RATE OF CHANGE 0.21099 DEG. PER PERIOD

ANOMALISTIC PERIOD 115.187 MIN.

RATE OF CHANGE -0.00046 MIN. PER PERIOD

ECCENTRICITY 0.04747

RADIUS OF PERIGEE 4641.1 MILES

RADIUS OF APOGEE 5103.7 MILES

RATE OF CHANGE -0.32 MILES PER DAY

ASCENDING NODE (R.A.) 189.69 DEG.

RATE OF CHANGE -3.29820 DEG. PER DAY

LATITUDE OF PERIGEE -44.21 DEG.

READ-IN EXPECTED MAG. 9.1